

**What is claimed is:**

1. A speech recognition dictionary creation apparatus for creating recognition dictionaries that are used for speech recognition, comprising a dictionary creating unit operable to create  
5 a plurality of recognition dictionaries with different contents depending on presence/absence of user experience.
2. The speech recognition dictionary creation apparatus according to Claim 1,  
10 wherein the dictionary creating unit creates the plurality of recognition dictionaries by registering words in the recognition dictionaries based on attributes of the words.
3. The speech recognition dictionary creation apparatus  
15 according to Claim 1,  
wherein the presence/absence of user experience is concerning presence/absence of viewing, and  
the dictionary creating unit creates the plurality of recognition dictionaries based on the presence/absence of the  
20 viewing.
4. The speech recognition dictionary creation apparatus according to Claim 1,  
wherein the presence/absence of user experience is  
25 concerning presence/absence of using, and  
the dictionary creating unit creates the plurality of recognition dictionaries based on the presence/absence of the using.
- 30 5. The speech recognition dictionary creation apparatus according to Claim 1,  
wherein the presence/absence of user experience is

concerning presence/absence of visiting, and

the dictionary creating unit creates the plurality of recognition dictionaries based on the presence/absence of the visiting.

5

6. The speech recognition dictionary creation apparatus according to Claim 1, further comprising:

an action history word obtaining unit operable to obtain an action history word to be recognized based on an action of a user;

10 an action history word storage unit operable to store the obtained action history word;

a fixed word storage unit operable to store fixed words to be set previously;

15 a word extracting unit operable to extract new recognition words to be recognized from inputted data; and

a dictionary storage unit operable to store the plurality of created recognition dictionaries,

20 wherein the dictionary creating unit creates one of the plurality of recognition dictionaries by selecting new registration words from the new recognition words, the fixed words and the action history word, registering the new registration words in the recognition dictionary and adding, to the new registration words, information indicating pronunciations and parts of speech of the new registration words.

25

7. The speech recognition dictionary creation apparatus according to Claim 6,

30 wherein the dictionary creating unit determines, as the new registration words, following three kinds of words: the new recognition words; the fixed words; and a word that is not included either in the new recognition words or in the fixed words and that belongs to the action history word.

8. The speech recognition dictionary creation apparatus according to Claim 6, further comprising:

a recognition word obtaining unit operable to obtain a past recognition word that was recognized by speech recognition; and

5 a past recognition word storage unit operable to store the past recognition word,

wherein the dictionary creating unit creates one of the plurality of recognition dictionaries by selecting new registration words from the new recognition words, the fixed words, the action  
10 history word and the past recognition word, registering the new registration words in the recognition dictionary and adding, to the new registration words, information indicating pronunciations and parts of speech of the new registration words.

15 9. The speech recognition dictionary creation apparatus according to Claim 6,

wherein the dictionary creating unit determines, as the new registration words, following three kinds of words: the new recognition words; the fixed words; and a word that is not included  
20 either in the new recognition words or in the fixed words and that belongs both to the action history word and to the past recognition word.

10. The speech recognition dictionary creation apparatus  
25 according to one of Claim 6 and Claim 8,

wherein the dictionary creating unit creates the recognition dictionary by assigning weights to each of the new registration words based on whether or not the words are included in the action history word and adding, to the new registration words, information  
30 concerning the assigned weights.

11. The speech recognition dictionary creation apparatus

according to Claim 8,

wherein the dictionary creating unit creates the recognition dictionary by assigning weights to each of the new registration words based on whether or not the words are included in the past  
5 recognition word and adding, to the new registration words, information concerning the assigned weights.

12. The speech recognition dictionary creation apparatus according to Claim 8,

10 wherein the dictionary creating unit creates the recognition dictionary by assigning weights to each of the new registration words based on whether or not the words are included in the action history word and the words are included in the past recognition word and adding, to the new registration words, information concerning  
15 the assigned weights.

13. The speech recognition dictionary creation apparatus according to one of Claim 6 and Claim 8,

wherein the data to be inputted is structured data,  
20 the word extracting unit extracts attributes of the new recognition words together with the new recognition words, and the dictionary creating unit creates the recognition dictionary by assigning weights to each of the new registration words based on the attributes of the new recognition words and adding, to the new  
25 registration words, information concerning the assigned weights.

14. The speech recognition dictionary creation apparatus according to Claim 13,

wherein the dictionary creating unit creates one of the  
30 plurality of recognition dictionaries with different weights for the new registration words according to purposes, these weights being determined based on attributes of the new recognition words.

15. The speech recognition dictionary creation apparatus according to Claim 13, further comprising an instruction accepting unit operable to accept an instruction from the user concerning use purpose of the recognition dictionary,

5 wherein the dictionary creating unit creates one of the plurality of recognition dictionaries by assigning weights to each of the new registration words based on the attributes of the new recognition words in response to the instruction concerning the use purpose that is accepted by the instruction accepting unit.

10 16. The speech recognition dictionary creation apparatus according to one of Claim 6 and Claim 8, further comprising a user information obtaining unit operable to obtain user recognition information for identifying the user,

15 wherein the dictionary creating unit creates the recognition dictionary for each piece of the user recognition information.

17. The speech recognition dictionary creation apparatus according to Claim 13, further comprising a user information  
20 obtaining unit operable to obtain user recognition information for identifying a user,

wherein the dictionary creating unit creates the recognition dictionary by assigning weights to each of the new registration words for each piece of the user recognition information.

25 18. The speech recognition dictionary creation apparatus according to Claim 6,

wherein the action history word obtaining unit records action date and time together with the action history word in the action  
30 history word storage unit,

the dictionary creating unit creates the recognition dictionary by further adding the action date and time to some of new

registration words, these new registration words being selected from the action history word, and

the speech recognition dictionary creation apparatus further comprises a word deleting unit operable to delete, from the recognition dictionary, the registration words which have been stored for a predetermined time period starting from the action date and time of the registration words.

19. The speech recognition dictionary creation apparatus according to Claim 6, further comprising an EPG receiving unit operable to demultiplex, from a TV signal, the EPG data that is an electronic program guide,

wherein an action of the user is the action that the user has viewed a program,

the action history word obtaining unit obtains the action history word in response to the action that the user has viewed the program, and

the word extracting unit extracts, from the EPG data, the new recognition words for each category that is the attribute.

20. The speech recognition dictionary creation apparatus according to Claim 19,

wherein the dictionary creating unit creates the recognition dictionary by assigning weights to each of the new registration words based on the categories of the EPG data and adding, to the new registration words, information concerning the assigned weights.

21. The speech recognition dictionary creation apparatus according to Claim 20,

wherein the dictionary creating unit creates a recognition dictionary for programs to be broadcast in future and another

recognition dictionary for recorded programs, the recognition dictionary for programs to be broadcast having higher weights for the registration words whose categories are "genre" and lower weights for the registration words whose categories are "title" and the recognition dictionary for recorded programs having higher weights for the registration words whose categories are "title" and lower weights for the registration words whose categories are "genre".

22. An information search apparatus for creating recognition dictionaries that are used for speech recognition and searching information using a speech signal based on speech of a user, comprising:

a dictionary creating unit operable to create a plurality of recognition dictionaries depending with different contents on presence/absence of user experience;

a speech recognition unit operable to recognize a specific word from the speech signal by referring to one of the recognition dictionaries;

a data storage unit operable to store data to be inputted; and  
a control unit operable to search the data for a word that is recognized by the speech recognition unit and output corresponding information.

23. The information search apparatus according to Claim 22, wherein the dictionary creating unit creates the plurality of recognition dictionaries based on attributes of words to be registered in the recognition dictionaries.

24. The information search apparatus according to Claim 22, wherein the presence/absence of the user experience is concerning presence/absence of viewing, and

the dictionary creating unit creates the plurality of recognition dictionaries based on presence/absence of the viewing.

25. The information search apparatus according to Claim 22,  
5 wherein the presence/absence of the user experience is concerning presence/absence of viewing, and

the dictionary creating unit creates the plurality of recognition dictionaries based on the presence/absence of the viewing.

10 26. The information search apparatus according to Claim 22, wherein the presence/absence of the user experience is concerning presence/absence of visiting, and

the dictionary creating unit creates the plurality of the  
15 recognition dictionaries based on the presence/absence of the visiting.

27. The information search apparatus according to Claim 22, further comprising:

20 an action history word obtaining unit operable to obtain an action history word to be recognized based on an action of a user;

an action history word storage unit operable to store the obtained action history word;

25 a fixed word storage unit operable to store fixed words to be set previously;

a word extracting unit operable to extract new recognition words to be recognized from data to be inputted; and

a dictionary storage unit operable to store the created recognition dictionary,

30 wherein the dictionary creating unit creates the recognition dictionary by selecting new registration words from the new recognition words, the fixed words and the action history word,



registering the new registration words in the recognition dictionary and adding, to the new registration words, information indicating pronunciations and parts of speech of the new registration words.

5 28. The information search apparatus according to Claim 27,  
wherein the data to be inputted is structured data, the word  
extracting unit extracts attributes of the new recognition words  
together with the new recognition words, and  
the dictionary creating unit creates the recognition dictionary  
10 by assigning weights to each of the new registration words based on  
the attributes of the new recognition words and adding, to the new  
registration words, information concerning the assigned weights  
and creates the plurality of recognition dictionaries with different  
weights for the new registration words depending on purposes,  
15 these weights being determined based on attributes of the new  
recognition words,  
the information search apparatus further comprises a  
dictionary selection accepting unit operable to accept a dictionary to  
be selected by a user from the plurality of recognition dictionaries  
20 that are stored in the dictionary storage unit,  
wherein the speech recognition unit recognizes a specific  
word obtained from a speech signal based on speech of a user by  
referring to the recognition dictionary accepted by the dictionary  
selection accepting unit.

25

29. The information search apparatus according to Claim 27,  
further comprising an EPG receiving unit operable to demultiplex,  
from a TV signal, EPG data that is an electronic program guide,  
wherein the action of the user is the action that the user has  
30 viewed a program,  
the action history word obtaining unit obtains the action  
history word in response to the action that the user has viewed the

program,

the word extracting unit extracts, from the EPG data, the new recognition word for each category that is the attribute,

the data storage unit stores the EPG data, and

5 the control unit outputs information concerning corresponding program by searching the EPG data for the word recognized by the speech recognition unit.

30. A speech recognition dictionary creation apparatus for  
10 creating recognition dictionaries that are used for speech recognition, comprising:

an action history word obtaining unit operable to obtain an action history word to be recognized based on actions of a user;

an action history word storage unit operable to store the  
15 obtained action history word;

a fixed word storage unit operable to store fixed words to be set previously;

a word extracting unit operable to extract new recognition words to be recognized from data to be inputted;

20 a dictionary creating unit operable to create the recognition dictionary by selecting new registration words from the new recognition words, the fixed words and the action history word, registering the new registration words in the recognition dictionary and adding, to the new registration words, information indicating  
25 pronunciations and parts of speech of the new registration words; and

a dictionary storage unit operable to store the created recognition dictionary.

30 31. A speech recognition dictionary creation method for creating recognition dictionaries that are used for speech recognition comprising a dictionary creating step of creating a plurality of

recognition dictionaries with different contents depending on presence/absence of user experience.

32. An information search method for creating recognition  
5 dictionaries that are used for speech recognition and searching  
information obtained from a speech signal based on speech of a user,  
comprising:

a dictionary creating step of creating a plurality of recognition  
dictionaries with different contents depending on presence/absence  
10 of user experience;

a speech recognition step of recognizing a specific word from  
the speech signal by referring to the recognition dictionaries; and

a control step of searching the inputted data for a word  
recognized by the speech recognition unit and outputting  
15 corresponding data.

33. A program for causing a computer to execute a step of  
creating recognition dictionaries that are used for speech  
recognition, comprising a dictionary creating step of creating a  
20 plurality of recognition dictionaries with different contents  
depending on presence/absence of user experience.

34. A program for causing a computer to execute steps of creating  
recognition dictionaries that are used for speech recognition and  
25 searching information obtained from a speech signal based on  
speech of a user, comprising:

a dictionary creating step of creating a plurality of recognition  
dictionaries with different contents depending on presence/absence  
of user experience;

30 a speech recognition step of recognizing a specific word from  
the speech signal by referring to one of the recognition dictionaries;  
and

a control step of searching the inputted data for words recognized by the speech recognition unit and outputting corresponding information.